

**Revised Table V-3 from Dr. Anderson's Report:
Summary of the Derivation of Exposure Durations for Contractors**

Exposure Factor	Typical Scenario	High-End Scenario	Note
Homes with VAI	3,000,000	3,000,000	Assumed
Total Homes	91,209,000	91,209,000	U.S. Census Bureau (2001) ^a
Frequency of VAI homes	3.29%	9.87%	Calculation/Assumption from Dr. Anderson's report ^b
Working days/year	250	250	Assumption from Dr. Anderson's report
Days working in VAI home/year	8.225	24.675	Calculated ^c
Probability of Contact with VAI in VAI home	10%	10%	Assumption from Dr. Anderson's report
Days contacting VAI/year	.82	2.47	Calculated

^a The value used represents the sum of homes in the following categories: "single family detached" (73,427,000 units), "single family attached" (8,428,000 units) and "2 to 4 units" (9,354,000 units)

^b The typical frequency of homes with VAI is a simple percentage of the total homes. The high-end frequency of homes is determined by using Dr. Anderson's assumption that the frequency of VAI homes in colder climates is triple the national average.

^c The VAI-home EF is the frequency of VAI homes multiplied by the number of working days per year.

**Revised Table V-4 from Dr. Anderson's Report:
Summary of Estimated Exposure Durations and TWFs for a Contractor**

Activity	Scenario	Time Spent in Activity (hrs/day)	Exposure Frequency (days/yr)	Exposure Duration (years)	Total Events	Total Hours	Time Weighting Factor (%)
2/ Small area clearance	Typical	0.5	.82	11	9	4.5	.00073%
	High-end	1.5	2.47	45	111	166.5	.027%
3/ Small area clearance & fan installation	Typical	3	.82	11	9	27	.0044%
	High-end	5	2.47	45	111	555	.091%
4/ Large area clearance	Typical	1	.82	11	9	9	.0015%
	High-end	2	2.47	45	111	222	.036%
5/ Removing VAI	Typical	8	.82	11	9	72	.012%
	High-end	12	2.47	45	111	1332	.22%

Revised Table E-5
WA Study- Contractor
(Using Dr. Lee's Faulty Exposure Concentrations- Excluding Alleged Cleavage Fragments)

Residential							Exposure Concentration (fibers per cubic centimeter PCME)/Risk
Activity	Assumed Exposure Scenario	Scenario	Data	Time Weighting Factor	Worker (f/cc)	Risk	
Ceiling Penetration	Small area clearance & fan inst.	Typical	Ewing 2003	.000044	0.049922544	5.1 E-07	
Ceiling Penetration	Small area clearance & fan inst.	High-end	Ewing 2003	.00091	0.049922544	1.0 E-05	
Moving Aside VAI-Grace Method	Large area clearance	Typical	Ewing 2003	.000015	0.521042537	1.8 E-06	
Moving Aside VAI-Grace Method	Large area clearance	High-end	Ewing 2003	.00036	0.521042537	4.3 E-05	
Moving Aside VAI-Homeowner Method	Large area clearance	Typical	Ewing 2003	.000015	0.567360299	2.0 E-06	
Moving Aside VAI-Homeowner Method	Large area clearance	High-end	Ewing 2003	.00036	0.567360299	4.7 E-05	
Shop Vac Removal VAI from top perimeter wall cavity	Small area clearance	Typical	Ewing 2003	.0000073	0	0.0 E+00	
Shop Vac Removal VAI from top perimeter wall cavity	Small area clearance	High-end	Ewing 2003	.00027	0	0.0 E+00	

Aggregate Risk ¹	Scenario	Risk
	Typical	2.5 E-06
	High-end	5.7 E-05

¹ Total does not include risk from “Moving Aside-Grace Method,” because the higher exposure scenario “Moving Aside VAI-Homeowner Method” was included in the total.

Revised Table E-9
WA Study- Contractor
(Using Dr. Lee's Faulty Exposure Concentrations- Including Alleged Cleavage Fragments)

Residential									
Activity	Assumed Exposure Scenario	Scenario	Data	Time Weighting Factor	Exposure Concentration (fibers per cubic centimeter PCME)/Risk	Worker (f/cc)	Risk		
Ceiling Penetration	Small area clearance & fan inst.	Typical	Ewing 2003	.000044		0.54	5.5 E-06		
Ceiling Penetration	Small area clearance & fan inst.	High-end	Ewing 2003	.000091		0.54	1.1 E-04		
Moving Aside VAI-Grace Method	Large area clearance	Typical	Ewing 2003	.000015		4.48	1.5 E-05		
Moving Aside VAI-Grace Method	Large area clearance	High-end	Ewing 2003	.000036		4.48	3.7 E-04		
Moving Aside VAI-Homeowner Method	Large area clearance	Typical	Ewing 2003	.000015		9.57	3.3 E-05		
Moving Aside VAI-Homeowner Method	Large area clearance	High-end	Ewing 2003	.000036		9.57	7.9 E-04		
Shop Vac Removal VAI from top perimeter wall cavity	Small area clearance	Typical	Ewing 2003	.0000073		0.69	1.2 E-06		
Shop Vac Removal VAI from top perimeter wall cavity	Small area clearance	High-end	Ewing 2003	.000027		0.69	4.3 E-05		

Aggregate Risk¹	Scenario	Risk
	Typical	4.0 E-05
	High-end	9.4 E-04

¹ Total does not include risk from "Moving Aside- Grace Method," because the higher exposure scenario "Moving Aside VAI- Homeowner Method" was included in the total.